CLAIMS:

1. A method of searching for a match for a query string, that represents an audio fragment, in a melody database; the method including:

decomposing the query string into a sequence of a plurality of query sub-strings;

for each sub-string, independently searching the database for at least a respective closest match for the sub-string; and

in dependence on the search results for the respective sub-strings, determining at least a closest match for the query string.

2. A method of searching for a query string as claimed in claim 1, wherein the step of decomposing the query string includes decomposing the query string into sub-strings that each substantially correspond to a phrase.

3. A method of searching for a query string as claimed in claim 1, including enabling a user to input the query string mixing a plurality of query input modalities.

4. A method of searching for a query string as claimed in claim 3, wherein at least one of the query input modalities is one of: humming, singing, whistling, tapping, clapping, percussive vocal sounds.

5. A method of searching for a query string as claimed in claim 3, wherein a change in query input modality substantially coincides with a sub-string boundary.

6. A method of searching for a query string as claimed in claim 1, wherein the step of decomposing the query string includes:

estimating how many (N_s) sub-strings are present in the query string;

dividing the query string in N_s sequential sub-strings; each sub-string being associated with a respective centroid that represents the sub-string;

iteratively:

for each centroid determining a respective centroid value in dependence on the corresponding sub-string; and

determining for each of the sub-string corresponding sub-string boundaries by minimizing a total distance measure between each of the centroids and its corresponding sub-string;

until a predetermined convergence criterion is met.

7. A method of searching for a query string as claimed in claims 2 and 6, wherein the step of estimating how many (N_s) sub-strings are present in the query string includes dividing a duration of the audio fragment by an average duration of a phrase.

8. A method of searching for a query string as claimed in claim 5, wherein the step of decomposing the query string includes retrieving for each of the input modalities a respective classification criterion and using a classification algorithm for based on the classification criteria detecting a change in query input modality.

9. A method of searching for a query string as claimed in claim 3 and 8, including constraining a substring to fall within two successive changes in query input modality.

10. A method of searching for a query string as claimed in claim 1, wherein the step of searching for each sub-string in the database includes generating for the sub-string an N-best list (N>=2) of the N most closest corresponding parts in the database with a corresponding measure of resemblance; and performing the determining of the at least closest match for the query string based on the measures of resemblance of the N-best lists of the sub-strings.

11. A computer program product operative to cause a processor to execute the steps of the method as claimed in claim 1.

12. A system for searching for a query string, that represents an audio fragment, in a melody database; the system including:

an input (122, 132) for receiving the query string from a user;

a melody database (114) for storing respective representations of plurality of audio fragments;

at least one processor (116) for, under control of a program,

- decomposing (117) the query string into a sequence of a plurality of query sub-strings;

- for each sub-string, independently searching (118) the database for at least a respective closest match for the sub-string; and

- in dependence on the search results for the respective sub-strings, determining (119) at least a closest match for the query string.